

John R. Kasich, Governor John Carey, Chancellor

REQUEST AND RECOMMENDATION

ONE-YEAR OPTION 900+ Clock Hour Programs – Building/ Property Maintenance

Background:

To provide another option for adult students to apply prior learning toward a degree, Ohio legislators established what has come to be known as the One-Year Option through Section 363.120 House Bill 59 of the 130th General Assembly. The Chancellor of the Ohio Department of Higher Education, in consultation with the Superintendent of Public Instruction and the Governor's Office of Workforce Transformation, was tasked to establish a One-Year Option credit articulation system in which graduates of Ohio's adult career-technical institutions who complete a 900-hour program of study AND obtain an industry-recognized credential approved by the Chancellor will be able to receive 30 technical semester credit hours toward a technical degree upon enrollment in a public institution of higher education. The Chancellor was also to recommend a process to award proportional semester credit hours for adult career-technical institution students who complete a program of study between 600 and 899 hours AND obtain an industry-recognized credential approved by the Chancellor. The Chancellor convened a broad group of stakeholders to develop a system of articulation for the One-Year Option that was presented in a report to the legislature called, "Getting to 30: Establishing a One-Year Option Credit Articulation System for Ohio."

In order to implement the system of articulation developed with the stakeholders as well as address accreditation requirements for degree granting institutions, the Chancellor convened Credit Affirmation Teams (CATs) to conduct a peer review of programs and certifications for affirmation for a block of 30 semester hours of technical credit. The CATs were comprised of faculty and administrators from Ohio Technical Centers (OTCs) and an equal number from public degree granting colleges and universities in Ohio. The CATs were organized by four discipline clusters: Health and Allied Health, Building and Industrial Technology, Business and Information Technology, and Services. They were charged with reviewing the certifications and, if necessary, program content, to affirm that students completing the selected program at an Ohio Technical Center and earned approved certifications had demonstrated competencies equivalent to 30 semester hours of technical credit. This technical credit would then be granted, as a block, upon enrollment in a degree granting institution. Additional subject matter experts were consulted when core team members did not have sufficient content knowledge of the program being reviewed.

Recommendation

As detailed in the attached template, the Building and Industrial Technology Credit Affirmation Team recommends that students will be eligible for a block of 30 semester hours of technical credit towards an Associate of Technical Studies in Building and Industrial Technology when:

• the student has successfully completed a 900+ clock hour program in Building/ Property Maintenance at an Ohio Technical Center.

And currently meets requirements for one of the following pathways:

Pathway 1:

- NCCER Core
- NCCER HVAC Level 1
- NCCER Electrical Level 1
- NCCER Plumbing Level 1
- NCCER Carpentry Level 1
- OSHA 10- General Industry
- EPA 608 Universal Certificate

Pathway 2:

- NCCER Core
- NCCER Construction Technology
- OSHA 10- General Industry
- EPA 608 Universal Certificate

Please note these certifications must be current and valid. Student must have been completed the Ohio Technical Center program within 5 years.

End of Comment Period: August 18, 2016 at 12:45 pm No comments received, recommend approval

RECOMMENDATION	
The Vice Chancellor of Academic Affairs has verified to	that this pathway has met the standards
requirements of the Ohio Board of Regents.	

Stephanie Davidson, Vice Chancellor of Academic Affairs

Date

and

APPROVAL

John Garey, Chancellor

9/8/16 Date

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The Program Affirmation is designed to provide a common matrix for a peer review process acceptable to the Higher Learning Commission to soundly affirm 30 semester hours of technical credit for Ohio Technical Center graduates who are eligible for the One-Year Option. The template should be completed for every program/subject and signed by the co-chairs of each of the four-cluster program areas for every Industry-recognized credential and program reviewed.

Please note: All Ohio Technical Centers must be accredited by one of the following: <u>Council on Occupational Education (COE)</u> and/or <u>Accrediting</u> Commission of Career Schools and Colleges (ACCSC).

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Program Name: Building/Property	Cluster Business & Information Technologies Health (All): 1 Health		
Maintenance	Health/Allied Health		
	☑ Industrial Trades		
CIP Code: 46.0401	☐ Service Industries & Agriculture		
CIP Code Program Definition: A program that prepares individuals to apply technical knowledge and skills to keep a building functioning, and to service a variety of structures including commercial and industrial buildings and mobile homes. Includes instruction in the basic maintenance and repair skills required to service building systems, such as air conditioning, heating, plumbing, electrical, major appliances, and other mechanical systems.			
	STEP ONE: CREDENTIAL REVIEW: PATH	WAY 1	
	Details/Explanation	Comments	
Primary Industry Credential (if there are competing certifications complete page multiple times)	Name: The National Center for Construction Education and Research (NCCER) Certifications Type: □ License □ Registry ☑ Certification	 Certifications NCCER Core NCCER HVAC Level 1 NCCER Electrical Level 1 NCCER Plumbing Level 1 NCCER Carpentry Level 1 	
Program requirements by credentialing body.	The program must be a NCCER Accredited Training Sponsor (ATS) and a NCCER Accredited Assessment Center. "Entities that have been approved by NCCER as having the resources to effectively conduct a quality training program that utilizes NCCER curriculum are designated as an ATS. Entities that have been approved by NCCER as having the resources to effectively conduct a quality assessment program that utilizes the National Craft Assessment and Certification Program (NCACP) assessments and performance verifications are designated as an NCCER Accredited Assessment Center. NCCER's accreditation	About the Exams: NCCER offers a complete series of entry- and journey-level written assessments as part of its National Craft Assessment and Certification Program (NCACP). These assessments evaluate the knowledge of an individual in a specific craft area and provide a prescription for upgrade training when needed. All assessments are based upon the NCCER Curriculum and have been developed in conjunction with Subject Matter Experts from the industry and	

	process assures that students and craft professionals receive quality training based on uniform standards and criteria. Training Sponsors and Assessment Centers are subject to audit on a three year cycle." For more information, please see: http://www.nccer.org/assessments-performance-verifications?mID=616	Prov TM , NCCER's test development partner. Module assessments consist of knowledge verification via the successful completion of a written assessment. In addition to the knowledge verification, some modules also require successful completion of a practical performance in the laboratory setting. Renewal: NCCER does not have a renewal option. Exam Integrity: NCCER, through their testing partner Prov TM , administers training module exams through a secure web-based platform, the Testing Management System. Module tests are created, launched, scored and electronically stored. Instructors and proctors are certified to NCCER requirements.
Instructional hours	NCCER Core required instructional hours: 72.5 NCCER HVAC 1 required instructional hours: 102.5 NCCER Electrical 1 required instruction hours: 112.5 NCCER Plumbing 1 required instructional hours: 122.5 NCCER Carpentry 1 required instructional hours: 152.5 All competencies must be covered. Remaining 337.50 hours may vary per program based on local advisory business/industry committees	562.50 clock hours of instruction to complete NCCER Curriculum requirements.
Competencies demonstrated by credential attainment.	 NCCER Core Competencies: Module 00101-09: Basic Safety Module 00102-09: Introduction to Construction Math Module 00103-09: Introduction to Hand Tools Module 00104-09: Introduction to Power Tools Module 00105-09: Introduction to Construction Drawings Module 00106-09: Basic Rigging (Elective) Module 00107-09: Basic Communication Skills Module 00108-09: Basic Employability Skills 	Each equipment specific module typically contains operation, controls, maintenance, and safety guidelines. NCCER Core http://www.nccer.org/uploads/fileLibrary/Core_2009_courseplanning816201351231PM63.pdf NCCER HVAC Level 1

- Module 00109-09: Introduction to Materials Handing NCCER HVAC Level 1 Competencies:
 - Module 03101-07: Intro to HVAC
 - Module 03102-07: Trade Mathematics
 - Module 03103-07: Copper and Plastic Piping Practices
 - Module 03104-07: Soldering and Brazing
 - Module 03105-07: Ferrous Metal Piping Practices
 - Module 03106-07: Basic Electricity
 - Module 03107-07: Intro to Cooling
 - Module 03108-07: Intro to Heating
 - Module 03109-07: Air Distribution

NCCER Electrical Level 1 Competencies:

- Module 26101-08: Orientation to the Electrical Trades
- Module 26102-08: Electrical Safety
- Module 26103-08: Introduction to Electrical Circuits
- Module 26104-08: Electrical Theory
- Module 26105-08: Introduction to the National Electrical Code
- Module 26106-08: Device Boxes
- Module 26107-08: Hand Bending
- Module 26108-08: Raceways & Fittings
- Module 26109-08: Conductors and Cables
- Module 26110-08: Basic Electrical Construction
- Module 26111-08: Residential Electrical Services
- Module 26112-08: Electrical Test Equipment

NCCER Plumbing Level 1 Competencies:

- Module 02101-05: Introduction to the Plumbing Profession
- Module 02102-05: Plumbing Safety
- Module 02103-05: Plumbing Tools
- Module 02104-05: Introduction to Plumbing Math
- Module 02105-05: Introduction to Plumbing Drawings
- Module 02106-05: Plastic Pipe and Fittings
- Module 02107-05: Copper Pipe and Fittings
- Module 02108-05: Cast-Iron Pipe and Fittings

http://www.nccer.org/uploads/fileLibrary/HVAC_L1_2013_CEPs.pdf

NCCER Electrical Level 1

http://www.nccer.org/uploads/fileLibrary/Electrical L1_CEP.pdf

NCCER Plumbing Level 1

http://www.nccer.org/uploads/fileLibrary/Plumbing L1_2012_courseplanning.pdf

NCCER Carpentry Level 1

<u>http://www.nccer.org/industrial-maintenance-mechanic?pID=86</u>

- Module 02109-05: Steel Pipe and Fittings
- Module 02110-05: Corrugated Stainless Steel Tubing
- Module 02111-05: Introduction to Plumbing Fixtures
- Module 02112-05: Introduction to DWV Systems
- Module 02113-05: Introduction to Water Distribution Systems

NCCER Carpentry Level 1 Competencies

- Module 27101-06: Orientation to the Trade
- Module 27102-06: Building Materials, Fasteners, and Adhesives
- Module 27103-06: Hand and Power Tools
- Module 27104-06: Reading Plans and Elevations
- Module 27105-06: Floor Systems
- Module 27106-06: Wall and Ceiling Framing
- Module 27107-06: Roof Framing
- Module 27108-06: Introduction to Concrete and Reinforcing Materials
- Module 27109-06: Windows and Exterior Doors
- Module 27110-06: Basic Stair Layout

The Trades and Industry Credit Affirmation Team (CAT) utilized the following process to complete the assessment regarding the number of semester hours that would be awarded at the college level as block credit based on the industry credentials plus 900-clock hours earned at an Ohio Technical Center (OTC).

- Research the competencies tested by the industry credential(s). The Trades and Industry CAT reviewed information about the industry credential(s) to determine the competencies signaled by earning the credential(s).
- Complete a nationwide internet search to review how other accredited colleges and universities are applying credit to NCCER Core, HVAC 1, Electrical 1, Plumbing 1, and Carpentry 1. Pima Community College awards 27.5 college credits towards an Associated of Applied Science degree in Business and Industry Technology to students of NCCER's accredited sponsors who successfully complete NCCER Core, HVAC 1, Electrical 1, Plumbing 1, and Carpentry 1 standardized craft training modules and the Pima-approved challenge exam for those modules.
- Review the value of local program advisory committee recommendations to meet the local industry needs. The Team concurred that there was value in having lab/practical, internships and/or externships as part of the program to meet local industry/business needs.
- Review OSHA 10-Hour Hazard Recognition Training for Construction. OSHA 10 includes content essential to general-related work such as fall protection, personal protective equipment, fire prevention and safety, OSHA inspection procedures and more.

Rationale:

• Review EPA 608 Universal Licensure Training. EPA 608 Universal Licensure includes content essential to Clean Air Act, Montreal Protocol, Section 608 Regulations regarding refrigeration, recovery, leak detection and repair, recharging and safety.

The Trades and Industry CAT confirms:

- The certifications exams are valid, reliable and peer-reviewed on a regular basis to ensure the content accurately measures intended competencies.
- The competencies measured by the NCCER Core, HVAC 1, Electrical 1, Plumbing 1, and Carpentry 1, OSHA 10 and EPA 608 Universal certificate are developed by industry and reflect industry standards.

The Trades and Industry CAT also considered competencies signaled by lab and practical learning experiences. As part of the program offered by OTCs, student will participate in lab/practical experience as recommended by the local program advisory committee to meet local business and industry needs. The lab/practical experiences will reinforce the instructional competencies through hands-on learning.

Upon successful completion of the 900+ hour program in the field of plumbing at an Ohio Technical Center and attainment of the following certifications:

- NCCER Core
- NCCER HVAC Level 1
- NCCER Electrical Level 1
- NCCER Plumbing Level 1
- NCCER Carpentry Level 1
- OSHA 10- General Industry
- EPA 608 Universal Certificate

A student shall be awarded 30 technical semester hours towards completion of an Association of Technical Studies at a public degree granting college or university.

-OR-

Program Name:	Cluster
Building/Property	☐ Business & Information Technologies
Maintenance	☐ Health/Allied Health
	☑ Industrial Trades
CIP Code: 46.0401	☐ Service Industries & Agriculture

STEP ONE: CREDENTIAL REVIEW: PATHWAY 2			
	Details/Explanation	Comments	
Primary Industry Credential (if there are competing certifications complete page multiple times)	Name: The National Center for Construction Education and Research (NCCER) Certifications Type: □ License □ Registry ☑ Certification	Certifications:NCCER CoreNCCER Construction Technology	
Program requirements by credentialing body.	The program must be a NCCER Accredited Training Sponsor (ATS) and a NCCER Accredited Assessment Center. "Entities that have been approved by NCCER as having the resources to effectively conduct a quality training program that utilizes NCCER curriculum are designated as an ATS. Entities that have been approved by NCCER as having the resources to effectively conduct a quality assessment program that utilizes the National Craft Assessment and Certification Program (NCACP) assessments and performance verifications are designated as an NCCER Accredited Assessment Center. NCCER's accreditation process assures that students and craft professionals receive quality training based on uniform standards and criteria. Training Sponsors and Assessment Centers are subject to audit on a three year cycle." For more information, please see: http://www.nccer.org/assessments-performance-verifications?mID=616	About the Exams: NCCER offers a complete series of entry- and journey-level written assessments as part of its National Craft Assessment and Certification Program (NCACP). These assessments evaluate the knowledge of an individual in a specific craft area and provide a prescription for upgrade training when needed. All assessments are based upon the NCCER Curriculum and have been developed in conjunction with Subject Matter Experts from the industry and Prov TM , NCCER's test development partner. Module assessments consist of knowledge verification via the successful completion of a written assessment. In addition to the knowledge verification, some modules also require successful completion of a practical performance in the laboratory setting. Renewal: NCCER does not have a renewal option. Exam Integrity: NCCER, through their testing partner Prov TM , administers training module exams through a secure web-based platform, the Testing Management System. Module tests are created, launched, scored and electronically stored. Instructors and proctors are certified to NCCER	

		requirements
Hour Requirements (includes any instructional, lab/practice hours, or internship hours).	NCCER Core required instructional hours: 72.5 NCCER Construction Technology required instructional hours: 347.5 All competencies must be covered. Remaining 480.00 hours may vary per program base on local advisory business/industry committees	420 clock hours of instruction to complete NCCER Curriculum requirements.
Competencies demonstrated by credential attainment.	 MCCER Core Competencies: Module 00101-09: Basic Safety Module 00102-09: Introduction to Construction Math Module 00103-09: Introduction to Hand Tools Module 00104-09: Introduction to Power Tools Module 00105-09: Introduction to Construction Drawings Module 00106-09: Basic Rigging (Elective) Module 00107-09: Basic Communication Skills Module 00108-09: Basic Employability Skills Module 00109-09: Introduction to Materials Handing NCCER Construction Technology Competencies Module 68101-09: Site Layout One – Distance Measure and Leveling Module 68102-09: Introduction to Concrete, Reinforcing Materials, and Forms Module 68103-09: Handling and Placing Concrete Module 68104-09: Introduction to Masonry Module 68105-09: Masonry Units and Installation Techniques Module 68107-09: Wall and Ceiling Framing Module 68108-09: Roof Framing Module 68109-09: Roof Framing Module 68109-09: Roofing Applications Module 68110-09: Exterior Finishing 	Each equipment specific module typically contains operation, controls, maintenance, and safety guidelines. NCCER Core http://www.nccer.org/uploads/fileLibrary/Core_2009 _courseplanning816201351231PM63.pdf NCCER Construction Technology http://www.nccer.org/construction-technology?pID=undefined

- Module 68111-09: Basic Stair Layout
- Module 68112-09: Electrical Safety
- Module 68113-09: Residential Electrical Services
- Module 68114-09: Introduction to HVAC
- Module 68115-09: Introduction to Drain, Waste, and Vent (DWV) Systems
- Module 68116-09: Plastic Pipe and Fittings
- Module 68117-09: Copper Pipe and Fittings

Rationale:

The Trades and Industry Credit Affirmation Team (CAT) utilized the following process to complete the assessment regarding the number of semester hours that would be awarded at the college level as block credit based on the industry credentials plus 900-clock hours earned at an Ohio Technical Center (OTC).

- Research the competencies tested by the industry credential(s). The Trades and Industry CAT reviewed information about the industry credential(s) to determine the competencies signaled by earning the credential(s).
- Complete a nationwide internet search to review how other accredited colleges and universities are applying credit
 to NCCER Core and Construction Technology. Pima Community College awards 20 college credits towards an
 Associated of Applied Science degree in Business and Industry Technology to students of NCCER's accredited
 sponsors who successfully complete NCCER Core, and Construction Technology standardized craft training
 modules and the Pima-approved challenge exam for those modules.
- Review the value of local program advisory committee recommendations to meet the local industry needs. The Team concurred that there was value in having lab/practical, internships and/or externships as part of the program to meet local industry/business needs.
- Review OSHA 10-Hour Hazard Recognition Training for Construction. OSHA 10 includes content essential to general-related work such as fall protection, personal protective equipment, fire prevention and safety, OSHA inspection procedures and more.
- Review EPA 608 Universal Licensure Training. EPA 608 Universal Licensure includes content essential to Clean Air Act, Montreal Protocol, Section 608 Regulations regarding refrigeration, recovery, leak detection and repair, recharging and safety.

The Trades and Industry CAT confirms:

- The certifications exams are valid, reliable and peer-reviewed on a regular basis to ensure the content accurately measures intended competencies.
- The competencies measured by the NCCER Core, and Construction Technology, OSHA 10 and EPA 608 Universal certificate are developed by industry and reflect industry standards.

The Trades and Industry CAT also considered competencies signaled by lab and practical learning experiences. As part of the program offered by OTCs, student will participate in lab/practical experience as recommended by the local program advisory committee to meet local business and industry needs. The lab/practical experiences will reinforce the instructional competencies through hands-on learning.

Upon successful completion of the 900+ hour program in the field of plumbing at an Ohio Technical Center and attainment of the following certifications:

- NCCER Core
- NCCER Construction Technology
- OSHA 10- General Industry
- EPA 608 Universal Certificate

A student shall be awarded 30 technical semester hours towards completion of an Association of Technical Studies at a public degree granting college or university.

ONLY IF NECESSARY TO AFFIRM 30 CREDITS----STEP TWO: PROGRAM-RELATED COMPETENCIES OBTAINED OUTSIDE OF PRIMARY CREDENTIAL

	Details/Explanation	Comments
Additional related complementary credential(s) or badge(s) (e.g. OSHA 10, CPR).	OSHA 10-Hour: General Industry Certification Universal EPA Section 608 Certification (Various Vendors)	
Competencies demonstrated by additional credential attainment.	OSHA 10- Hour: General Industry: Mandatory - 7 hours of training Introduction to OSHA Walking and Working Surfaces, including fall protection Exit Routes, Emergency Action Plans, Fire Prevention Plans, and Fire Protection Electrical Personal Protective Equipment Hazard Communication	Must be taught by a Certified OSHA Outreach Trainer. https://www.osha.gov/dte/outreach/program_require_ments.pdf OSHA safety training compliance standards are for the jobsite and individuals receive a wallet card and certificate. OSHA 10 can only be taught by an OSHA Outreach Trainer in good standing, who has been approved by OSHA standards and has completed OSHA Train-the Trainer course work.
	Elective - 2 hours of Training	

Must present at least two hours of training on the following topics. At least two topics must be presented. The minimum length of any topic is one-half hour.

- Hazardous Materials
- Materials Handling
- Machine Guarding
- Introduction to Industrial Hygiene
- Bloodborne Pathogens
- Ergonomics
- Safety and Health Program
- Fall Protection

Optional - 1 hour of Training.

Teach other general industry hazards or policies and/or expand on the mandatory or elective topics. The minimum length of any topic is one-half hour.

Universal EPA Section 608 Certification CORE

- Ozone Depletion
- Clean Air Act and Montreal Protocol
- Section 608 Regulations
- Substitute Refrigerants and oils
- Refrigeration
- Three R's
- Recovery Techniques
- Dehydration Evacuation
- Safety
- Shipping

TYPE 1 (Small Appliances)

- Recovery Requirements
- Recovery Techniques
- Safety

TYPE 2 (High-Pressure)

Universal Section 608 Certification http://www.epa.gov/ozone/title6/608/technicians/cert outl.html#core

Description of additional program elements beyond primary credential.	 Leak Detection Leak Repair Re Recovery Technic Recovery Requistre Refrigeration Safety TYPE 3 (Low-pressure Leak Detection Leak Repair Re Recovery Technic Recharging Technic Recovery Requistre Refrigeration Safety 	equirements niques irements e) equirements niques chniques		
Program related competencies/learning outcomes outside of credential(s). Include how competencies are demonstrated.				
Related Programs as of Fall 2015:	Ohio Technical Cent Eastland-Fairfield Car	ter reer & Technical School	Program Name Facilities Mainten	Clock Hours ance 900
Committee Members and Subject Matter Experts:	Name Barbara Wagner Kelly Zelesnik Jon Buttelwerth Larraine Kapka Mike Sizemore Tim Conley	Role Co-Chair Co-Chair Member Member Member Member Member	Cincinnati State Sinclair Commun Miami Valley Ca	ommunity College Technical and Community College

•				
	Jeffrey Jones	Member	Ashland County	West Holmes Career Center
Other Parameters of Competency.				
OTHER COMMENTS.	Material covered is a	dequate to allow 30 hou	ars of credit to be grante	ed.
AFFIRMED NUMBER OF TECHNICAL BLOCK CREDITS	30 semester hours			LENGTH OF TIME CREDENTIAL CAN BE USED FOR ONE-YEAR OPTION: Must have completed a 900+ hour Building/Property Maintenance program at an Ohio Technical Center and meet requirements for one of the following two pathways: Pathway 1: NCCER Core NCCER HVAC Level 1 NCCER Electrical Level 1 NCCER Plumbing Level 1 NCCER Carpentry Level 1 NCCER Carpentry Level 1 NCCER Carpentry Level 1 NCCER Construction Technology SPA 608 Universal Certificate Pathway 2: NCCER Construction Technology SPA 608 Universal Certificate The certifications must be current and valid. Must have been completed the Ohio Technical Center program within 5 years.
Co-chair signatures:	DeB	relands. A. Wague		Kella Teles mil
Date: 8/1/2016		Tagner, Adult Division E Center – Ohio Technic		Kelly A. Zelesnik. Dean of Engineering Technologies Lorain County Community College